## BRIEF DESCRIPTION OF THE DRAWINGS

The invention and further development of the invention are described in even greater detail by means of several examples and partially diagrammatic drawings, in which

FIG. **1** shows a perspective view of an inventive, lens-shaped intervertebral implant,

FIG. **2** shows a longitudinal section through the intervertebral implant of FIG. **1** along the central plane VIII-VIII,

FIG. **3** shows a side view from the right of the intervertebral implant of FIG. **1**,

FIG. **4** shows a side view from the left of the intervertebral implant of FIG. **1**,

FIG. **5** shows a perspective view of an inventive intervertebral prosthesis, which is secured by means of cured osteocementum,

FIG. **6** shows a plan view of the intervertebral prosthesis of FIG. **5**,

FIG. **7** shows a perspective view of a variation of the embodiment, using two intervertebral implants, the osteocementum securing the implant in their position relative to one another as well as to prevent migrating apart,

FIG. **8** shows a plan view of the two intervertebral implants of FIG. **7**,

FIG. **9** shows a front view of a variation of the embodiments, in which the perforated intervertebral implant has a rectangular cross section and

FIG. **10** shows a front view of a variation of the embodiment, in which the perforated intervertebral implant has a circular ring-shaped cross section.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The intervertebral prosthesis **1**, shown in FIGS. **1** and **2**, consists of a rectangular hollow body and has a front side **2**, a rear side **3**, an upper side **4** suitable for positioning against the baseplate of a vertebral body, a lower side **5** suitable for positioning against the baseplate of a vertebral body, a right side **6**, a left side **7**, a cavity **8** suitable for accommodating a flowable, hydraulic osteocementum, an inlet opening **9** into the cavity **8** and several outlet openings **10**; **11**; **12**; **13** from the cavity **8**. The upper side **4** and the lower side **5** converge toward the front side **2** as well as toward the rear side **3**, so that a lens-like configuration of the intervertebral prosthesis results.

As can be seen from FIG. **2**, the cross section of the cavity **8** decreases in the shape of a cone as the distance from the inlet opening **9** increases.

As shown in FIG. **3**, there are three outlet openings **12** with areas $F_1$, $F_2$ and $F_3$ in the right side **6** of the intervertebral prosthesis **1**, so that the sum $S_R$ of the cross sectional surfaces of the outlet openings emerging the right side **6** is $S_R=F_1+F_2+F_3$.

As shown in FIG. **4**, there are two outlet openings **13** with the areas $F_4$ and $F_5$ in the left side **7** of the intervertebral prosthesis **1**, so that the sum $S_L$ of the cross-sectional surfaces of the outlet openings emerging for the left side **7** is $S_L=F_4+F_5$.

It is important that the sum $S_L>S_R$, so that more osteocementum can emerge on the left side **7** of the intervertebral prosthesis **1** from the cavity **8** through the outlet opening **13** into the intervertebral space than from the right side **6**.

FIGS. **5** and **6** show how the osteocementum **20**, emerging from the right side **6** and the left side **7** of the intervertebral prosthesis **1**, is distributed. Because the sum $S_L$ of the cross sectional areas of the outlet openings **13** emerging on the left side **7** is larger, the amount of osteocementum **20**, emerging on the left side **7** and curing, is also larger than that emerging on the right side **6** and curing.

FIGS. **7** and **8** show a further embodiment, which consists of two inventive intervertebral prosthesis **1**, which are disposed next to one another. The two intervertebral prostheses are positioned in such a manner, that the right side **6** of the intervertebral prosthesis **1**, which is disposed on the left, is oriented in the direction of the left side **7** of the intervertebral prosthesis **1**, which is disposed on the right. For the intervertebral prosthesis **1**, disposed on the left, the condition $S_L>S_R$ applies, whereas, for the intervertebral prosthesis **1**, which is disposed on the right, the reverse applies, namely $S_R>S_L$. Due to this measure, less osteocementum **20** emerges in the space between the two intervertebral prostheses **1** than emerges to the right side of the intervertebral prosthesis **1** disposed on the right and to the left side **7** of the intervertebral prosthesis **1** disposed on the left.

FIG. **9** shows a variation of the embodiment of an inventive intervertebral implant **1**, which has a rectangular cross section and from which a larger amount of osteocementum **40** has emerged on the right side than on the left side.

FIG. **10** shows a further variation of an embodiment of an intervertebral prosthesis **1**, which has a circular cross section and for which the amount of osteocementum **40** emerging on the right side through the outlet openings **12** is larger than that emerging on the left side through outlet openings **13**.

The invention claimed is:

**1**. A surgical method, comprising:

inserting an intervertebral implant into a disc space between upper and lower vertebrae; and

delivering a flowable material into a cavity of the implant to cause the flowable material to flow asymmetrically out of the implant and into the surrounding disc space through openings formed in the implant;

wherein the implant includes:

a first lateral side being substantially straight and having at least one of the openings formed therein, the at least one opening of the first lateral side having a combined cross-sectional area A**1**;

a second lateral side being substantially straight and having at least one of the openings formed therein, the at least one opening of the second lateral side having a combined cross-sectional area A**2**;

wherein A**1** is greater than A**2** such that delivering the flowable material comprises delivering a greater amount of flowable material through the at least one opening of the first lateral side than through the at least one opening of the second lateral side.

**2**. The method of claim **1**, wherein:

a greater amount of flowable material emerges from a right side of the implant than from a left side, or

a greater amount of flowable material emerges from the left side of the implant than from the right side.

**3**. The method of claim **1**, wherein delivering the flowable material comprises delivering a greater amount of flowable material to a portion of the disc space on one side of the implant than to a portion of the disc space on an opposite side of the implant.

**4**. The method of claim **1**, wherein delivering the flowable material comprises filling the disc space with the material.

**5**. The method of claim **1**, wherein the openings in the implant are dimensioned to automatically supply more of the flowable material to a central zone of the disc space than to other regions of the disc space.

**6**. The method of claim **1**, wherein the openings in the implant are configured to automatically supply more of the